



# Soponova™ MicroCSP™ Industrial and Utility Solar Collector



## THE SOPOGY VISION STATEMENT

Sopogy is dedicated to helping our customers achieve their renewable energy goals. Our concentrating solar power technologies help maximize energy production while minimizing costs.

Since 2002, Soponova™ has undergone rigorous testing in the harsh Kona, Hawaii desert where it was exposed to salt, humidity and storms.

## ADVANTAGES

- Reduce Your Energy Cost
- Create Revenue Streams
- Lower Emissions
- Qualify for Renewable Energy Certificates
- Benefit from Tax Credits and Incentives

MicroCSP Solutions By:



Figure 1: Soponova 4.0

## Overview

Sopogy has pioneered the concept of MicroCSP™ bringing concentrated solar power to industrial and utility facilities. These systems have a small footprint and lightweight design while providing highly efficient electrical and thermal power generation from a renewable and sustainable fuel: solar energy.

Sopogy collectors are unique, based on proven solar processes, and utilize commodity materials which extends the lowest first cost and quickest installation to you. The Soponova 4.0 is shipped partially assembled in order to reduce the volume of air in shipping containers, resulting in reduced transport costs. Our unique design combined with our proprietary assembly racks enables our customers to fully assemble the final Soponova 4.0 collectors at the job site.

The tracking system is available and easily integrates onto the Soponova 4.0 collector. Our proprietary tracking algorithm enables the Soponova 4.0 to track the sun accurately and to stow the collector in the upside down position in the evening. Individual Soponova 4.0 collectors can be combined to form rows up to 12 collectors long in order to reduce the number of tracking systems needed in an overall solar collector field.

## Features:

- Powered by renewable solar energy
- No emissions
- Automated system control and monitoring
- Produces temperatures as high as 392° F (200° C)
- Easily retrofitted into your existing facility

## Benefits:

- No fossil fuel payments
- Federal Solar Tax Credits
- Federal Accelerated Depreciation
- State Tax Credits
- Storm Storage
- One energy input, multiple energy outputs

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# SopoNova™ MicroCSP™

## Industrial and Utility Solar Collector

### COLLECTOR - General Data\*

Description	Units (Metric)	Units (Standard)
Collector Length	3.657 m	12 ft
Collector Width	1.524 m	5 ft
Total Collector Area	5.574 m <sup>2</sup>	60 ft <sup>2</sup>
Collector Reflective Area	5.07 m <sup>2</sup>	54.6 ft <sup>2</sup>
Heat Collection Element O.D.	25.4 mm	1 inch
Heat Transfer Fluid Capacity	1.288 liter	0.34 gal
Recommended Flow Rate	22.7-45.4 liter/min	6-12 gal/min
Operating Temperature Ranges	50-260° C	122-500° F
Collector Weight	68 kg	150 lb
Focal Length	304.8 mm	12 inch
Ambient Operating Temperatures	-10 to 50 ° C	14-122 ° F
Maximum Wind Speed (stowed)	161 km/h	100 mph
Maximum Wind Speed (tracking)	54 km/h	33 mph
Useful Life Expectancy	30 + years	30 + years



### OPTICAL EFFICIENCY

Description	Value
Receiver Absorptivity	0.92
Mirror Reflectivity	0.91
Receiver Emittance (@ 400° C / 752° F)	0.23

### SOLAR COLLECTOR PERFORMANCE

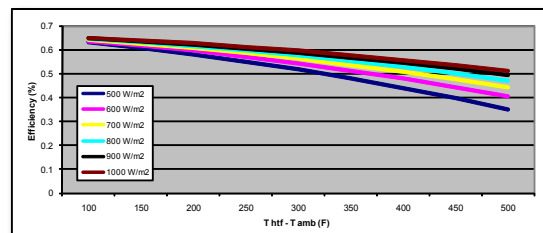
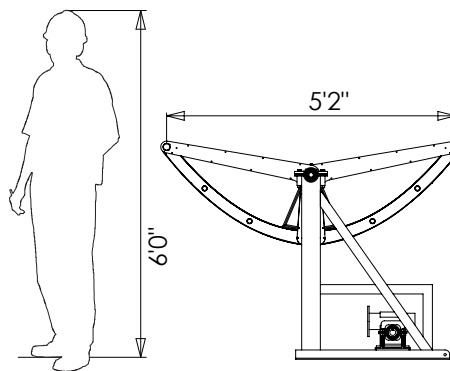
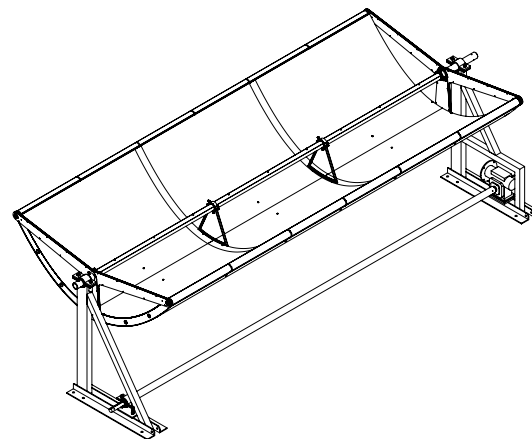
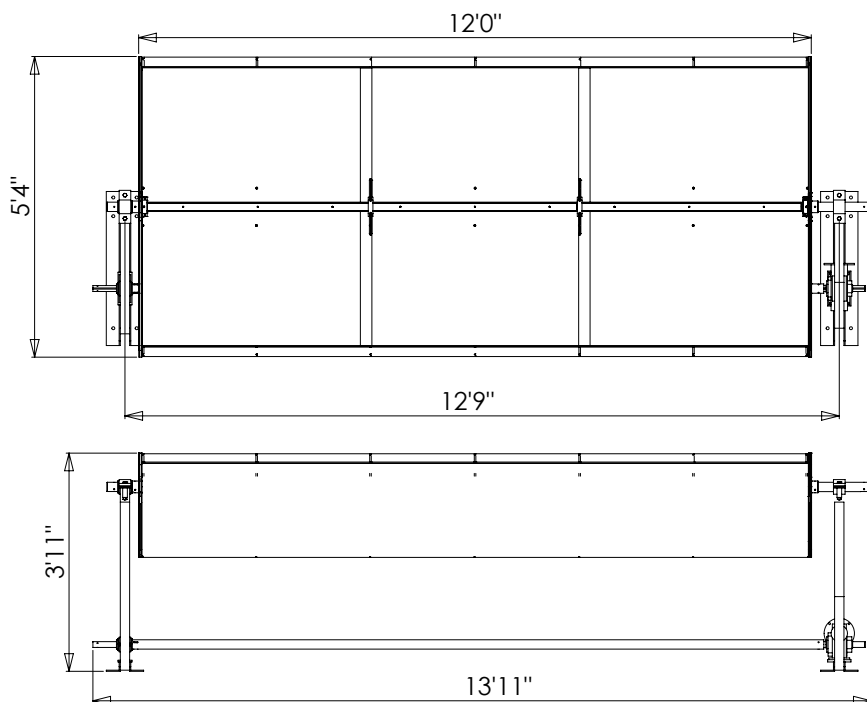


Figure 2: Instantaneous Collection Efficiency

\* General data subject to change



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